

Coues's *Key to North American Birds, Second Edition*.*—The twelve years which have passed since the publication of the first edition of the 'Key' have been marked by unprecedented activity and progress in North American ornithology—sufficient, indeed, to render antiquated any text-book on our birds, however well up to date in the year 1872. In preparing the second edition of the 'Key,' the author has not only attempted to bring the work abreast of the present phase of the subject, but has taken the opportunity to remedy the defects of the first, and to greatly enlarge the scope of the work by the addition of much new material, covering branches of the subject wholly omitted in the old 'Key.' While in bulk the book seems scarcely larger than the one that has so long been a familiar and useful companion alike to the amateur and the professional ornithologist, it contains more than twice as many pages, and probably four times more matter, in consequence of the use of smaller type and thinner paper. Nearly 350 new illustrations have been added, a few of them replacing old ones now discarded. About fifty—drawn by Mr. Edwin Sheppard and engraved by Mr. H. H. Nichols—have been prepared expressly for the present edition, besides some thirty or more original anatomical drawings, made by Dr. R. W. Shufeldt, U. S. A., and many cuts borrowed from various duly accredited sources.

The work, as it now stands, is divided into four 'Parts,' as follows: 'Part I. Field Ornithology.' This is a reprint, with slight modifications and the addition of a few illustrations, of the author's well-known work of this title originally published in 1874. 'Part II. General Ornithology.' This is the introductory matter of the old 'Key' greatly amplified and with many new illustrations, but especially through the addition of nearly 100 pages of entirely new matter on the anatomy of birds. 'Part III. Systematic Synopsis of North American Birds.' This is the 'Systematic Synopsis' of the old 'Key' greatly augmented through much fuller treatment of the subject, the diagnoses of the various forms treated being much extended, and to which is added a concise epitome of the biography of each. 'Part IV. Systematic Synopsis of the Fossil Birds of North America.' This is the 'Appendix,' of the old 'Key' brought down to date. As before, it has been revised by Professor O. C. Marsh. The number of species and varieties of living birds now admitted is about 900; of fossil species, 46.

Part II, the author characterizes as "a sort of 'Closet Ornithology' as distinguished from a 'Field Ornithology'; being a treatise on the classification and structure of birds, explaining and defining the technical terms used in ornithology,—in short, teaching the principles of the science and

* *Key to North American Birds*. Containing a concise account of every species of living and fossil bird at present known from the Continent north of the Mexican and United States boundary, inclusive of Greenland. Second Edition, revised to date, and entirely rewritten: with which are incorporated General Ornithology: an outline of the structure and classification of birds, and Field Ornithology: a Manual of collecting, preparing, and preserving birds. By Elliott Coues, M. A., M. D., Ph. D., Member of the National Academy of Sciences, etc., etc. Profusely illustrated. Boston: Estes & Lauriat, 1884. Royal 8vo. pp. xxx + 863, 1 col. pl., and 563 woodcuts.

illustrating their application." The section (pp. 65-81) devoted to 'Principles and Practice of Classification,' unfolds in a familiar way what classification is and its purposes, treating the subject from the modern standpoint of evolution, giving to beginners an easily comprehensible view of the details and general principles that underlie systematic classification. The section on the 'External Parts of Birds' (pp. 81-133) is not only rewritten, but greatly amplified.

The 'Introduction to the Anatomy of Birds' (pp. 133-227,—entirely new—is too brief to set forth the matter at due length; it is addressed to beginners, and treats the subject of anatomy mainly from the standpoint of systematic ornithology. More special attention is therefore given to the skeleton, but the prominent features of the muscular, vascular, respiratory, digestive, urogenital, and nervous systems, and the special sense organs, are noticed at some length, some sixty pages being devoted to the structure of the soft parts, against about forty to the bones.

The nomenclature adopted in the 'General Synopsis' is strictly that of the second edition of the 'Coues Check List,' published in 1882. The authorities for the names adopted are, however, omitted, as are all bibliographical references. While space is thus saved for other matter, we are not sure the omission, viewed from the side of convenience, was wise. About a dozen more species and subspecies are included than are in the 'Check List'—mostly described since its publication—but their insertion is not allowed to disturb the numeration adopted in the 'Check List,' although some of the genera even are transposed. Two subspecies are here described for the first time, viz., 49a, *Parus hudsonicus evura*, from 'Alaska,' and 262a, *Funco hiemalis connectens*, from the 'Mts. of Colorado.'

A noteworthy feature of the work is the sketch of the history of North American ornithology (given in the 'Historical Preface,' pp. xi-xxvi), from its earliest beginnings down to about the year 1860. The history is happily divided into 'epochs' and 'periods,' and the work and impress of each prominent author who has written especially of North American birds is briefly adverted to and judiciously weighed. The method of treatment admits of each author's share in the development of the science being thrown into sharp relief, the subject being handled with the author's usual felicity of expression.

The work as a whole represents a vast amount of labor, faithfully and carefully performed. The illustrations are for the most part excellent; the typography (the work is printed at the Cambridge 'University Press') is beyond praise; the general design and execution are tasteful to a high degree. If we were inclined to quarrel with the author it would be on minor points, and especially with his remarks about 'mummification' (p. 47), 'benzine,' 'tobacco leaves,' and baking bird skins (p. 57), all of which we have tried and seen tried to our utter disgust. These points we hope to refer to at greater length on some future occasion.—
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